

CYNTECH
HOLISTIC ENGINEERING SOLUTIONS

2020 COMPANY PROFILE



**Synthesising
technology and
collaborating with
people to provide
efficient and
holistic engineering
solutions for the built
environment.**

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1. ABOUT US

Cyntech Engineers and Managers (RF) (Pty) Ltd is a consulting engineering firm based in Cape Town, South Africa. We offer extensive expertise on a wide range of professional engineering, advisory and project management services for the petrochemical, building and urban development industries throughout sub-Saharan Africa. Cyntech gets its name from two words: cynosure and technology. We lead the way in designing holistic engineering solutions for our clients, ensuring their project comes to fruition.



Synthesising technology and collaborating with people to provide efficient and holistic engineering solutions for the built environment.

Our passion is engineering and the built environment. Managing a project from an idea to completion and the ease with which our clients can use the systems we designed, gives us immense satisfaction. Our primary goal is to maximise the value on capital projects. We accomplish this by making our clients' lives simpler while ensuring their business and engineering processes are more effective and efficient. We keep up to date with the latest engineering trends and ensure that the correct technology is implemented in line with project requirements.

We love what we do and we enjoy engaging with our clients – ensuring they receive a positive experience is of the utmost importance to us. We aim to build meaningful relationships with our clients that transcend business as usual, leaving them with the knowledge that we're in the project together, to the end.

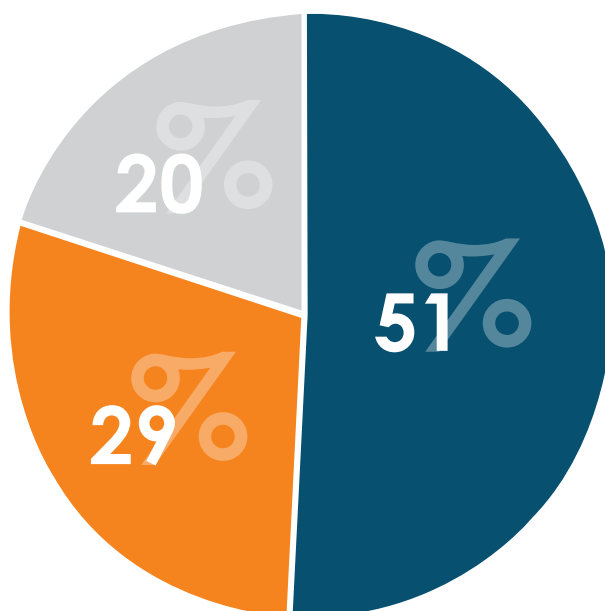
We aspire to meet or exceed our clients' expectations and complete the project in the best yet simplest way, without the need for micromanagement. We are highly adaptable and adjust our project management processes to suit the client's needs so that we align with their procedures, rules and regulations.

Cyntech aims to become an organisation that clients see as the ideal for practical, effective and efficient holistic engineering solutions in Africa, and can do this with our exceptionally qualified team who have decades of collective experience in the industry.

2. COMPANY MANAGEMENT AND OWNERSHIP

Cyntech has three (3) shareholders, namely the Cyntech BEE Trust, Willem de Villiers and Ashley Verhulp, as apportioned in the chart below:

CYNTECH OWNERSHIP



- Cyntech BEE Trust
- Willem De Villiers
- Ashley Verhulp

In accordance with the Memorandum of Incorporation (MOI), 51% of the company shall be Black owned at any given time.

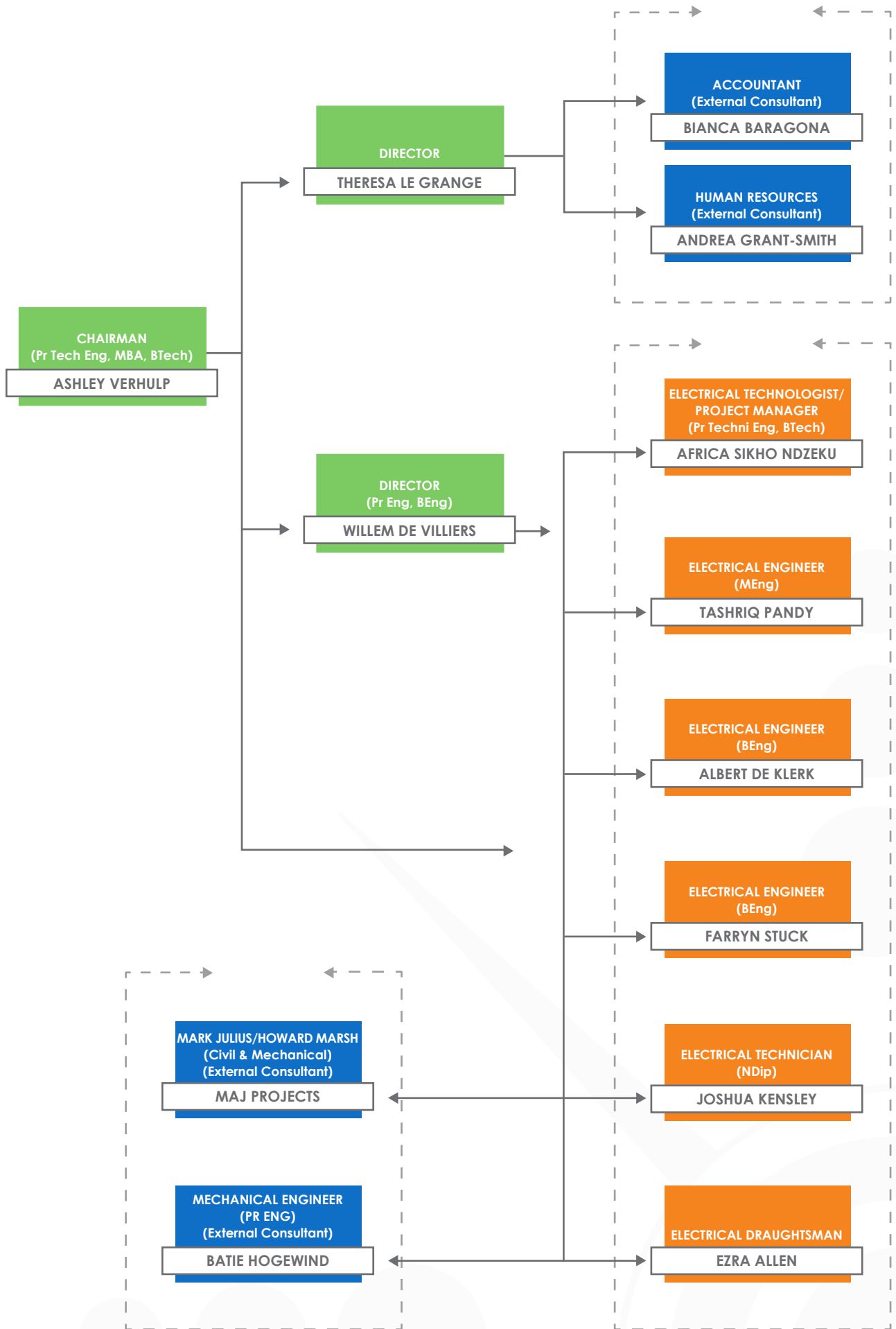
The board of directors, currently elected to represent the shareholders are Theresa Le Grange, Willem De Villiers and Ashley Verhulp (chairman).

3. ORGANISATIONAL CHART



Cyntech has adopted a flat organizational structure for increased agility to manage projects efficiently and effectively.

All employees have increased involvement in most decision-making processes pertaining to engineering design. As such, all employees have an increased level of responsibility which results in increased coordination between all employees and ultimately, quick decisions. In order to address the ever-changing requirements in industry pertaining to multiple disciplines, Cyntech has formed strategic partnerships with highly experienced civil and mechanical engineers to assist the team as and when projects develop. A graphical representation of the company structure is shown on the overleaf.





Cyntech is fully committed to engineering excellence

4. B-BBEE

Cyntech firmly believes in transformation and has followed a focused approach to empowering historically marginalised persons within the company.

The company has a black ownership profile of 51%, held via a Trust which has been established in terms of the Broad-Based Black Economic Empowerment Act (No. 53 of 2003) and the Amended Codes of Good Practice. The Cyntech BEE Trust provides ownership rights to black employees, serving as a vehicle that will enable them to obtain an economic interest in the firm, allowing for an organic distribution of profits.

Cyntech is proud to have obtained **Level 1 B-BBEE accreditation with 135% procurement recognition**. We are determined to continue making a positive impact through our continued commitment to our people and our unwavering support of all the businesses in our community.

Our journey towards transformation is far from over, and we are looking forward to taking our staff and clients along on this journey as we endeavour to leave a positive impact on all facets of our organisation and community.

A background image of an industrial facility, possibly a refinery or chemical plant, with various towers, pipes, and storage tanks. The scene is dimly lit, suggesting dusk or dawn, with a warm, orange glow from the sky. The text '5. PROFESSIONAL INDEMNITY' is overlaid in white on the left side.

5. PROFESSIONAL INDEMNITY

Cyntech has professional indemnity and public liability insurance for the built environment to the value of R10,000,000.00 for any one claim. The policy is with Leppard Insurance, underwritten by Lombard Insurance Company Limited.

6. REGISTRATIONS AND ASSOCIATIONS

We encourage our employees to register with their relevant professional and statutory bodies and organisations, such as the Engineering Council of South Africa (ECSA) and the South African Institute for Electrical Engineers (SAIEE). Cyntech is also mindful of the environment and is therefore registered with the Green Building Council (GBCSA), ensuring we design in a holistic and environmentally-sustainable manner. All professionals working for Cyntech are also motivated to register as mentors, as we care deeply about skills transfer from generation to generation.

In order to maintain a dedicated focus on leadership and to align the business structure with best industry practices, **Cyntech made a commitment to initiate their ISO 9001:2015 process on the 31st of May 2019.** CIGROUP developed the ISO system and the Cyntech team are already implementing and entrenching the quality system as part of the company culture. Formal accreditation is expected by the end of 2020.

7. QUALITY POLICY STATEMENT



Cyntech is committed to providing our clients with the highest possible level of service.

In order to achieve this, we are continually improving our processes and services, striving to meet and exceed client expectations at all times. The implementation of the quality policy is the responsibility of all staff members, with overall responsibility residing in the Board of Directors.



Cyntech is committed to:

- Fully identifying and conforming to the needs of our clients and consequently improving overall satisfaction.
- Monitoring and reviewing our service provision and processes, identifying potential errors and implementing the necessary actions to eliminate them.
- Providing extensive staff training and promoting a 'do it properly or not at all' attitude towards quality.
- Forging partnerships with suppliers and other major players in the Private and Public Sectors to ensure optimum business performance.
- Achieving and maintaining a standard of excellence in the operation of our business.
- Maintaining our reputation for honesty and integrity and ensuring that this is reflected throughout the organization.
- Providing sufficient resources and equipment to ensure that we can operate in accordance with our quality policy.
- Ensuring that all company policies and procedures have the full support of the Board of Directors.
- Continually monitoring and reviewing our Quality Policy to ensure that it remains relevant and effective to the changing needs of our clients and business environment.
- Continuous appraisal of our business to ensure that the quality of service we provide fully and consistently meets our clients' expectations and all current legislative requirements.

The Quality Policy Statement will be reviewed annually. Responsibility for compliance to this policy rests with all staff members. All employees are required to monitor the effectiveness of the policy and its associated initiatives. Furthermore, all employees are encouraged to bring forward any suggestions they may have which would lead to the improvement of the quality of work as we promote an inclusive company culture.

8. HEALTH AND SAFETY POLICY



All employees of Cyntech, and their families, are important to the company. Every employee has the right to a safe and healthy workplace and the right to return home every day, healthy and without injury. We strive to maintain a safe and healthy workplace and every employee is responsible for carrying out their work dutifully. Cyntech aims for a 'zero injury' per year target and firmly believes that this is an achievable performance target.

Cyntech's health and safety policy is based on the Occupational Health & Safety Act No. 85 of 1993 and as such, are committed to:

- The prevention of any form of loss;
- The health and safety of all persons on its property
- Ensuring that management do everything within their authority to prevent injury to personnel and minimise loss;
- Ensuring that all employees understand their duty to avoid injury to themselves or others and to minimise any form of loss within their control;
- Operating in a responsible manner which comply with environmental requirements.

In addition, **Cyntech also have a comprehensive and holistic safety plan for the company**, which was specifically prepared by HESQ specialists, ProQuality Consulting. The aim being to further embed health, safety and environmental awareness into the company culture.

9. SERVICES



9.1 Petrochemical

Our extensive experience in the petrochemical industry allows us to offer the following services:

- Hazardous area classification (HAC)
- Inspections and audits
- Hydrocarbon detection systems
- Overfill protection and level alarm integration (see Instrumentation)
- Tank gauging systems
- Control system design
- Earthing, bonding and electrical continuity
- Explosion Protection (Ex) equipment selection and system integration
- Intrinsically Safe (IS) system designs
- Emergency Shut Down (ESD) system designs
- Road and rail loading and off-loading systems
- Pipeline transfer
- Retail service stations and forecourts
- Fire detection and protection systems



9.2 Electrical

Cyntech offers the design and management of the following electrical engineering services:

- Low Voltage (LV) and Medium Voltage (MV) reticulation for commercial and industrial applications
- Low Voltage Distribution Board (DB) and Motor Control Centre (MCC) design
- Lightning protection, power earthing and surge protection systems
- Energy management and power quality monitoring
- Power factor correction design
- Standby generator and Uninterruptible Power Supply (UPS) systems
- Electrical design for residential, commercial and industrial building developments
- Photo-voltaic (PV) system designs for residential and industrial applications.



9.3 Instrumentation

Our combined background in the instrumentation sector provides us the opportunity to offer the following services:

- PLC and SCADA systems
- Process control network designs
- Digital infrastructure designs
- Building Management Systems (BMS)
- Instrument selection and system integration
- Control philosophies and functional design specifications
- Safety Instrumented System (SIS) design
- Basic Process Control System (BPCS) design
- Fire detection and public address systems
- Access control
- Telemetry Systems



9.4 System Integration

Process control networks, PLC programming, SCADA development and the transformation of process data into useful information via the Industrial Internet of Things (IIoT), has become more prevalent and integral in our design process.

Traditional paradigms around engineering design are being challenged as technology advances rapidly and the need for project cost reduction increases. Being at the core of the electrical, control and instrumentation design process from inception stage, Cyntech has positioned itself to offer these services in-house at a lower cost to the Client.

Our direct involvement in various aspects of process control system integration ultimately increases project value, as it reduces the number of role players in a project including the inherent associated cost. Integrated involvement mitigates miscommunication, misalignment and misunderstanding between the design engineer and the traditional 3rd party system integrator resulting in optimized design and commissioning stages.





9.5 CCTV

By applying advanced technology such as digital recording, video and audio monitoring and communications, Cyntech's CCTV system designs are on par with the best in the industry. We ensure that our designs are both flexible and versatile in order to suit the client's requirements. This ensures system integration with building management systems and/or control centers (both on- and off-site).

Our CCTV design allows for a variety of operations, such as large areas requiring many cameras, to smaller ones with fewer cameras. These benefits include employee productivity monitoring, process monitoring as well as theft deterrence and additional security.



9.6 Lighting

Lighting plays a vital role in security, safety and architectural applications for a variety of industries. We provide the following energy-efficient and practical lighting designs:

- Street lighting
- Flood lighting
- Security lighting
- Exterior and interior lighting for work and safety
- Architectural lighting
- Commercial office lighting
- Automated intelligent lighting control



9.7 Mechanical

The Cyntech team's cumulative years in mechanical engineering ensures design excellence in the petrochemical industry and elsewhere. Our experience ranges from feasibility studies to commissioning in the following areas:

- Fuel storage and distribution design
- Additive Injection / Dosing
- Aviation
- Air conditioning and Ventilation
- Fire protection
- Road Bridging
- Road Loading
- Bulk Tank Design
- Bulk Transfer Pipelines
- Bulk Lubricant Transfer System
- Filtration and water reclaiming
- Firefighting (Tank / Bund and Gantry Protection)



We ensure that a holistic project management structure is put in place to ensure that our clients' projects are delivered on time and within budget.



9.8 Project Management

Professional project management is critical to a project's success. Cyntech's expertise has been built up across numerous projects, both large and small. We ensure that a holistic project management structure is put in place to ensure that our clients' projects are delivered on time and within budget.

We offer a full project management service, from concept and inception through to handover and close-out. This service is provided across a range of sectors, including oil and gas, energy, commercial and infrastructure.

Our clients' organizations are both complex and unique. Therefore, Cyntech provides a project management structure that's aligned to each client's requirements. We work in harmony with our client's technical and operational personnel by being hands-on from beginning to end and ensuring that project deliverables are reached at every stage.

We offer various stages of management, which will guide your project through to successful completion.



Stage 1 – Inception

During this process, we establish the client's requirements and preferences. This enables us to assist them in developing a clear brief before appointing the necessary consultants, with whom we will share necessary information. The brief will incorporate the following aspects: objectives, priorities, constraints, assumptions, aspirations and strategies.

Deliverables will typically include:

- Agreed services and scope of work
- Signed agreement
- Report on project, site and functional requirements
- Schedule of consents, approvals and related lead times

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Stage 2 – Concept & Viability

This stage covers the preparation and finalizing of the project concept in accordance with the brief and regulatory authorities. This includes project scope, scale, character, form and function, as well as the preliminary programme and viability of the project.

Deliverables will typically include:

- Concept design
- Schedule of required surveys, tests and other investigations
- Process design
- Cost estimates

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Stage 3 – Detailed Design

During this stage, we will develop the approved concept into a finalized design. This consists of outlining specifications, preparing a cost plan, determining financial viability and creating a project programme in accordance with the client's requirements.

Deliverables will typically include:

- Detailed design drawings
- Detailed reports
- Local and other authority submission drawings

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Stage 4 – Documentation & Procurement

This process involves the preparation of procurement and construction documentation. Our team will also confirm the procurement strategy and procedures before implementing them. We ensure the effective and timeous acquisition of all necessary resources, enabling the successful execution of the project.

Deliverables will typically include:

- Technical specifications
- Tender drawings
- Budget construction cost
- Tender documentation
- Tender adjudication with recommendations
- Priced contract documentation



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Stage 5 – Contract Administration & Inspection

This stage involves managing, administering and monitoring the construction contracts and processes. It also includes the preparation and coordination of procedures and documentation to facilitate practical completion of the work.

Deliverables will typically include:

- Schedules of predicted cash flow
- Construction drawings and documentation
- Contract instructions
- Valuations for payment certificates
- Financial control reports

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Stage 6 – Close-out

Finally, we administer the project close-out, which includes all the necessary documentation to facilitate effective completion. This will allow the project to be handed over to the client and enable them to start operating the plant.

Deliverables will typically include:

- Works and final completion lists
- Operations and maintenance manuals, guarantees and warranties
- Record drawing and documentation
- Final account





9.9 Advisory

We provide our clients with essential support. This is due in part to our experience in technical consulting and acquired business acumen, as well as our expertise in technical, commercial and financial aspects. We aim to increase our clients' profitability by maximizing the value in their investments.

Cyntech can provide conceptual studies, including preliminary evaluations of alternatives, as well as an initial estimation of costs to facilitate the project brief. Before construction begins, we amend the project requirements where necessary by addressing value and risk.

We offer holistic services for new and existing works, including:

- Evaluation of available technology options
- Analysis of utilities and site requirements
- Identification of personnel and training requirements
- Financial analysis, including capital cost and ROI estimates
- Project and operational risk assessment.

Cyntech is applicable to extensive projects as a result of our systematic yet flexible approach. We ensure that non-technical stakeholders understand the project in its entirety by providing clear and concise information. What's more, Cyntech also provides unbiased evaluations of a project's viability and potential outcomes, due to our in-depth knowledge of industry best practices.



10. STAFF COMPLIMENT

ASHLEY VERHULP

CHAIRMAN

Pr Tech Eng, MBA (USB), BTech (Elec), MSAIEE

Ashley Verhulp is experienced, motivated and adaptable. He sees his 15+ years of experience as Project Manager and Design Engineer for the petrochemical, building and urban development industries as more than a job – it's a passion. Ashley aims to improve the return on capital investment projects and operations, and designing efficient and effective systems is a priority. With a BTech (Cum Laude) degree in Electrical Engineering and an MBA degree from the University of Stellenbosch, he adds significant value to the Cyntech team.

Ashley's specialties are numerous, such as leading project teams and coordinating activities between developers, the design team and contractors. His skills also include designing holistic process control and instrumentation systems, LV reticulation, CCTV design and lighting systems. He is registered with ECSA as both a Professional Engineering Technician (Pr Techni Eng) and Professional Engineering Technologist (Pr Tech Eng), and is a member of the South African Institute of Electrical Engineers (MSAIEE).

Ashley intends to share his passion with others – he's registered with ECSA as a Mentor in the field of electrical engineering and strongly believes in developing younger engineers and transferring skills.

WILLEM DE VILLIERS

DIRECTOR

Pr Eng, BEng (US), MIEEE

Willem began his career as a Design Technician in 1974 in electrical and electronic services. This instilled a love for the profession, leading him to study a Bachelor of Engineering (Electrical and Electronic) at the University of Stellenbosch.

Willem is registered with ECSA as a Professional Engineer. He has a wide range of experience, from engineering for petrochemical plants both onshore and offshore to industrial installations, electrical reticulation services, electrical and mechanical building services, commercial installations, automation, controls and drives as well as hazardous location classification and systems engineering.

In addition, Willem undertakes forensic investigations for static flash fires at fuel offloading installations as well as fatal accidental electrocutions. He was also convener of the working group to rewrite SABS 10089 Part 2.

In 2001 he began mentoring Ashley Verhulp, Cyntech's Chairman, and their relationship grew from strength to strength, culminating in the creation of Cyntech. Willem's many years of experience in the industry makes him invaluable to the team.

THERESA LE GRANGE

DIRECTOR

Theresa has extensive experience in administration and financial management. She began her career at Standard Bank as a teller, ledger operator and data capturer. She was then promoted to Sales Consultant where she consistently reached her targets. What's more, she performed staff training in various business processes.

She later joined De Villiers & Khan Consulting Engineers, where she was introduced to Cyntech Director Willem de Villiers. Her services included general office administration as well as human resources duties such as salaries, CCMA, UIF and medical aid filings.

Theresa then moved into financial management at De Villiers & Khan, where she was tasked with invoicing, debtor and creditor control, fee proposals, VAT and PAYE reconciliation.

Due to Theresa and Willem's favorable working relationship, Theresa joined the Cyntech team as Director, where she is responsible for the financial management of the firm.



SIKHO NDZEKU

ELECTRICAL TECHNOLOGIST / PROJECT MANAGER

Pr Tech Eng; BTech (Elec Eng)

Sikho began his career as an Electrical Technician/Electrical Draughtsman with guidance from Chairman Ashley Verhulp, which has led to a symbiotic working relationship. He has experience in draughting electrical and mechanical drawings, and has assisted in the design of firefighting automation systems and hazardous classifications on fuel depots, as well as electrical and instrumentation design of fuel receipt and loading facilities.

Sikho's skills extend to the design of flood, street and security lighting installations, as well as the design of urban, industrial and commercial electrical networks. What's more, he is experienced in the design of small power layout and lighting installations in industrial and commercial buildings.

Sikho is registered with ECSA as a Professional Engineering Technician and is currently studying towards his MEng degree in the field of Electrical Engineering. He is mentored by Cyntech Chairman Ashley Verhulp.

TASHRIQ PANDY

ELECTRICAL ENGINEER

MEng (Elec Eng)

Tashriq began his career with Cyntech in February 2019 after completing his MEng in Electrical & Electronic Engineering at Stellenbosch University in 2018. His MEng project focused on solar renewable energy, where he designed and experimented with solar panel monitoring techniques to optimise energy efficiency of the solar panel. Tashriq has a passion for solar energy systems and plans extend this passion to the team.

During his studies at Stellenbosch University, Tashriq worked part-time in their IT department, where he acquired excellent programming skills in various programming languages. He will extend his programming capabilities by assisting Cyntech in designing process control networks and SCADA systems.

Tashriq is registered with ECSA as a Candidate Engineer and is being mentored by Cyntech Chairman Ashley Verhulp to attain his Pr Eng soon.

ALBERT DE KLERK
ELECTRICAL ENGINEER

Albert began his career with Cyntech in January 2020 after completing his BEng in Electrical & Electronic Engineering at Stellenbosch University in 2019. Albert has a passion for renewable energy systems. And for his final year project he designed and manufactured a prototype Electrically Excited Synchronous Generator to be used for further research on its application in wind turbines.

Albert is continuously looking to upskill himself and is always willing to assist to the best of his ability.

Albert is in the process of registering with ECSA as a Candidate Engineer and will then be mentored by Cyntech Chairmen Ashley Verhulp and Willem de Villiers to attain his PrEng.

FARRYN STUCK
ELECTRICAL ENGINEER

Farryn began her career with Cyntech in March 2020 after completing her BEng in Electrical & Electronic Engineering at Stellenbosch University in 2019. Her final year project focused on the design and implementation of a 600W pure sine wave inverter which can be used to provide customers with a battery back-up solution when the utility is unavailable.

Farryn has a passion for the engineering design and development environment. She is always looking to broaden and develop her skills in all aspects of engineering and has a willingness to assist and partner wherever she can.

Farryn is registered with ECSA as a Candidate Engineer. She is currently being mentored by Cyntech Chairman Ashley Verhulp and Willem de Villiers to attain her PrEng.

EZRA ALLEN
SENIOR ELECTRICAL DRAUGHTSMAN

Ezra has a background of over 20 years' in draughting electrical services. Ezra permanently joined the Cyntech team in November 2018 after displaying untapped potential during his part-time employment period at the company which commenced in October 2017.

He is skilled in lighting, small power, telephone and data installations, as well as fire detection, CCTV and access control. He is also experienced in the draughting of Piping and Instrumentation Diagrams (P&IDs) and Hazardous Area Classification Drawings.

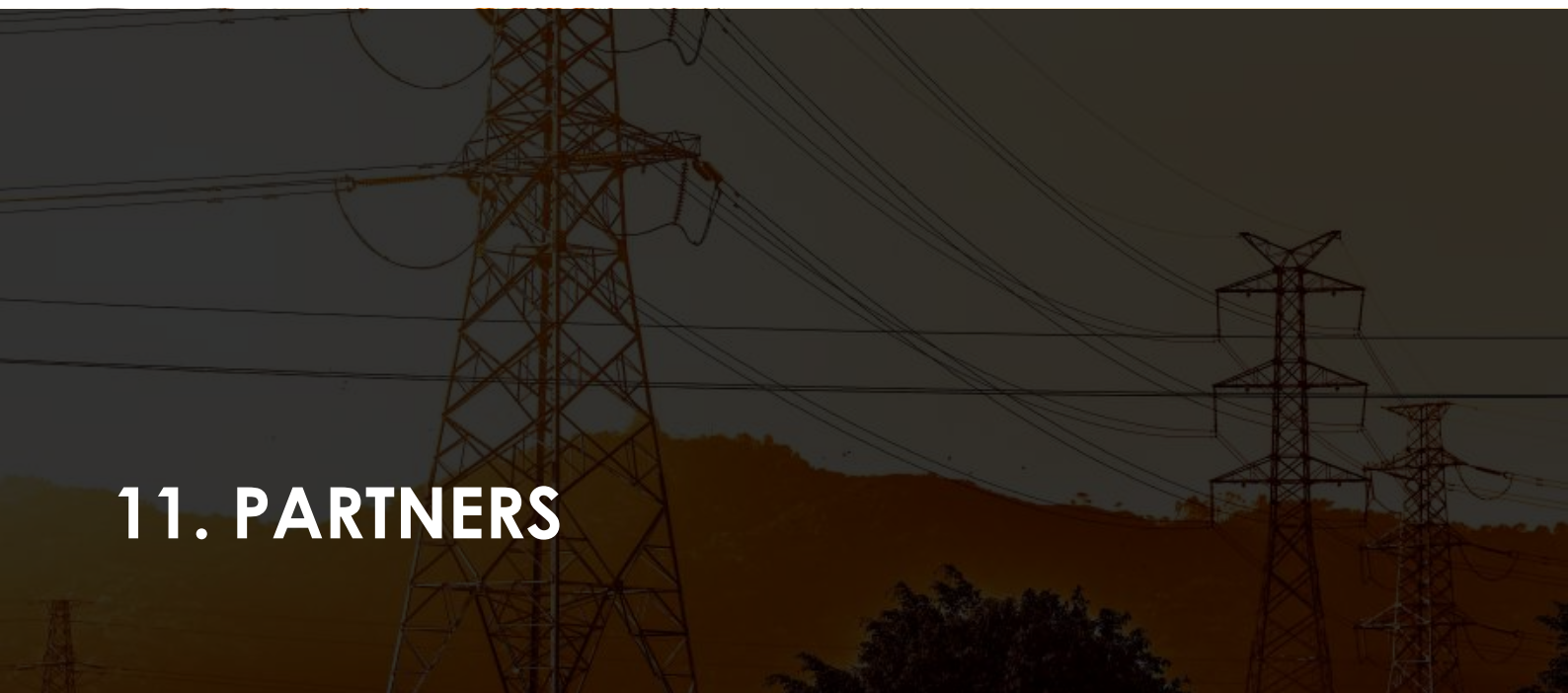
Ezra is continuously looking to upskill himself and is always willing to assist with the design of lighting and small power layouts, fire detection and CCTV layouts where required.

JOSHUA KENSLEY
ELECTRICAL TECHNICIAN

Joshua began his career as an electrical apprentice in 2015 and was an active member of an electrical team conducting installations in hazardous areas throughout Sub-Saharan Africa. Over the course of 18 months, he gained experience in MCC and control systems, equipping him with invaluable practical experience, now used in the consulting discipline at Cyntech.

Joshua is currently finishing his National Diploma in Electrical Engineering: Power Systems (NDELPS) with completion scheduled end 2020. Graduation will be followed by the commencement of the Bachelor of Engineering Technology in Electrical Engineering (BET), in 2021.

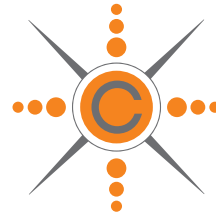
Joshua began his employment with Cyntech in 2019. He is proficient with AutoCAD and designs electrical networks for the petrochemical industry. Joshua's diverse set of competencies also extend to lighting design. He is passionate about HMI and SCADA systems and aims to specialize in System Integration. Joshua is very dedicated to his work and has a strong work ethic. He is being mentored by Director Willem De Villiers and Chairman Ashley Verhulp.



11. PARTNERS

Cyntech has partnered with the following firms in order to offer a wider set of professional services:

- MAJ Projects
- BH Consulting Engineers
- HHO Africa
- Seal Consulting Engineers
- Water and Wastewater Engineering



CYNTECH
HOLISTIC ENGINEERING SOLUTIONS

CONTACT DETAILS

The company address is:

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